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A.D. 1898. JUNE 18. N°. 13,644.

RALEIGH'S COMPLETE SPECIFICATION. (1 SHEET)

2504

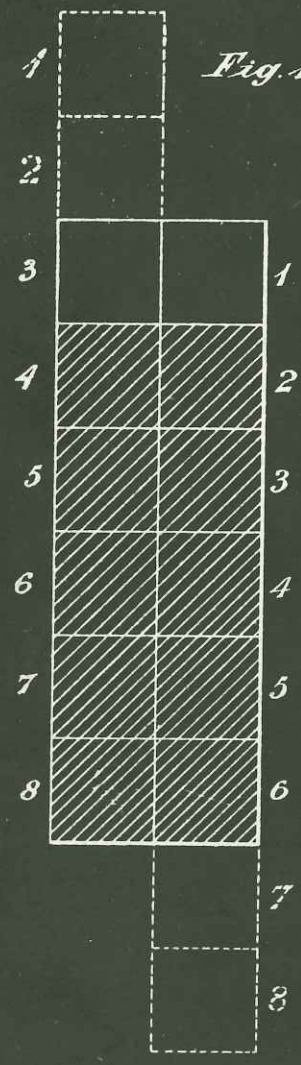


Fig. 1.

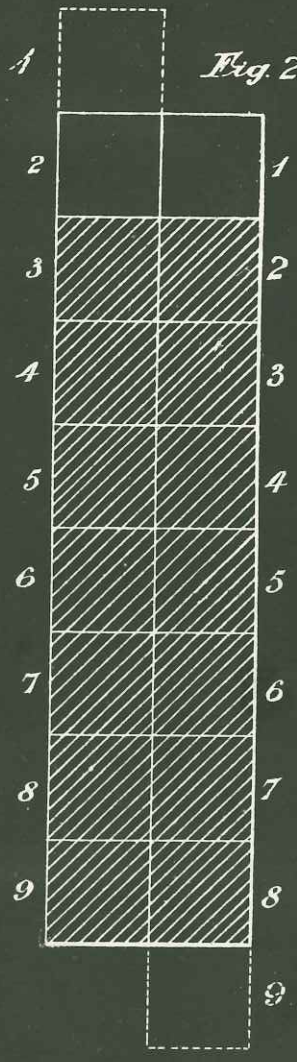


Fig. 2.

Fig. 3.

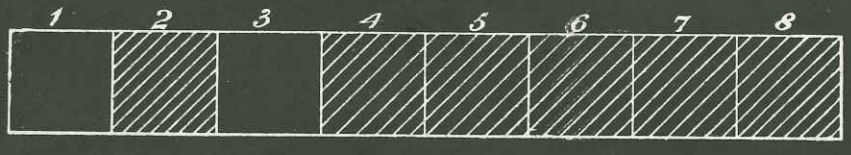
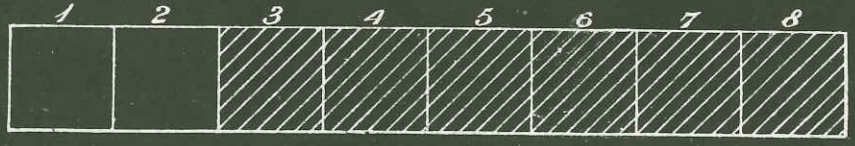


Fig. 4.



[This Drawing is a reproduction of the Original on a reduced scale]

Malby & Sons Photo-Litho

359/478 AU 257 39904

GB 0013644
APR 1899

N° 13,644 A.D. 1898

Date of Application, 18th June, 1898

Complete Specification Left, 20th Mar., 1899—Accepted, 22nd Apr., 1899

PROVISIONAL SPECIFICATION.

Improvements in Obtaining Stereoscopic Effects.

I, CHARLES RALEIGH, of 58, Chancery Lane, in the County of Middlesex, Mechanical Engineer, do hereby declare the nature of this invention to be as follows:—

This invention relates to improved means for obtaining stereoscopic effects with pictures exposed in rapid succession, so as to give the appearance of moving objects, such effects being obtainable from a single series of such pictures or from a single series duplicated. My invention is also applicable to the production with stereoscopic effects of what I may term a stationary picture; such picture being selected from a series of pictures of a moving object taken in rapid succession.

According to one mode of obtaining stereoscopic effects in the representation of moving objects, instead of employing a stereoscopic camera and producing two distinct series of pictures, the two series being respectively taken from points of view at a greater or less distance apart, I employ a single lens camera arranged in any of the modes commonly adopted for taking in rapid succession a series of photographs of a moving object. Having printed or otherwise reproduced the series of pictures in duplicate, I pass the two series side by side rapidly through a stereoscope. Although the two series of pictures are identical, identical representations of the object are not under observation at the same time. In other words, the one series is arranged slightly in advance of the other, according to the direction of movement of the object photographed. For example, the first picture in the one series may accompany the third picture in the other series, the second may accompany the fourth and so on; the relation of the corresponding pictures in the respective series being however varied according to the degree of relief desired, the lapse of time between the exposures, the speed of the moving object, the direction of motion and the distance of the object from the camera.

According to another mode of accomplishing the same object, I employ a single series of pictures, but expose them in a stereoscope arranged in such a manner that the eyes of the observer, looking through the two lenses of the instrument, see the first and the third pictures at the same time, then the second and the fourth, and so on; or the first and the fourth, the second and the fifth, and so on, according to the conditions before referred to as rendering variations in this respect desirable.

From the foregoing, it will be readily understood that in order to produce from a series of representations of a moving object any given stationary picture, the subject appearing in relief, it is only necessary to select two of the pictures more

[*Price 8d.*]

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or less removed from one another as regards their proper positions in the series, and to expose the same to view in a stereoscope.

Dated this 15th day of June 1898.

For the Applicant,
G. G. M. HARDINGHAM,
Chartered Patent Agent, 191, Fleet Street, London, E.C.

COMPLETE SPECIFICATION.

Improvements in Obtaining Stereoscopic Effects.

I, CHARLES RALEIGH, of 58, Chancery Lane, in the County of Middlesex, Mechanical Engineer, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

This invention relates to improved means for obtaining stereoscopic effects with pictures exposed in rapid succession, so as to give the appearance of moving objects; such effects being obtainable from a single series of such pictures, or from a single series duplicated. My invention is also applicable to the production with stereoscopic effects of what I may term a "stationary" picture; such picture being selected from a series of pictures of a moving object taken in rapid succession.

According to one mode of obtaining stereoscopic effects in the representation of moving objects, instead of employing a stereoscopic camera and producing two distinct series of pictures, the two series being respectively taken from points of view at a greater or less distance apart, I employ a single lens camera, arranged in any of the modes commonly adopted for taking in rapid succession a series of photographs of a moving object. Having printed or otherwise reproduced the series of pictures in duplicate, I pass the two series side by side rapidly through a stereoscope. Although the two series of pictures are identical, identical representations of the object are not under observation at the same time. In other words, the one series is arranged slightly in advance of the other, according to the direction of movement of the object photographed. For example, the first picture in the one series may accompany the third picture in the other series, the second may accompany the fourth, and so on; the relation of the corresponding pictures in the respective series being however varied according to the degree of relief desired, the lapse of time between the exposures, the speed of the moving object, the direction of motion and the distance of the object from the camera. Fig. 1 of the accompanying diagrams illustrates this method of arrangement, picture No. 1 in the right-hand series accompanying picture No. 3 in the left-hand series. In Fig. 2, picture No. 1 in the right-hand series accompanies picture No. 2 in the left-hand series.

According to another mode of accomplishing the same object, I employ a single series of pictures, but expose them in a stereoscope arranged in such a manner that the eyes of the observer, looking through the two lenses of the instrument, see the first and the third pictures at the same time, then the second and the fourth, and so on; or the first and the fourth, the second and the fifth, and so on, according to the conditions before referred to as rendering variation in this respect desirable. The former of these two methods is illustrated in Fig. 3 of the accompanying diagrams; pictures Nos. 1 and 3 being presented simultaneously. The next pair to be seen would be Nos. 2 and 4.

The diagram Fig. 4 illustrates a similar method of working in which pictures Nos. 1 and 2 are seen together, then Nos. 3 and 4 and so on.

From the foregoing, it will be readily understood that in order to produce from a series of representations of a moving object any given stationary picture, the subject appearing in relief, it is only necessary to select two of the pictures more or less removed from one another as regards their proper positions in the series, and to expose the same to view in a stereoscope.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I claim:—

1. The herein described method of producing stereoscopic effects consisting in taking a series of photographs of an object in motion, duplicating the same, arranging the two series of representations side by side the one slightly in advance of the other and passing them through a stereoscope so that pictures Nos. 1 and 2, or Nos. 1 or 3, or Nos. 1 and 4 are viewed simultaneously.

2. The herein described method of producing stereoscopic effects consisting in taking a series of photographs of an object in motion and passing the same through a stereoscope constructed in such a manner that pictures Nos. 1 and 2, or Nos. 1 and 3, or Nos. 1 and 4, are viewed simultaneously.

Dated this 20th day of March 1899.

For the Applicant,

G. G. M. HARDINGHAM,

Chartered Patent Agent, Clun House, Surrey Street, London, W.C.

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